Avalanche Details

- Location: Mount Baldy, South Bowl
- State: Colorado
- Date: 2019/01/30
- Time: 12:51
- Summary Description: 1 skier caught, carried, and uninjured
- Primary Activity: Skiing
- Primary Travel Mode: Skiing
- Location Setting: Backcountry

Number

- Caught: 1
- Partially Buried, Non-Critical: 1
- Partially Buried, Critical: 0
- Fully Buried: 0
- Injured: 0
- Killed: 0

Avalanche

- Type: SS
- Trigger: AS-skier
- Trigger (subcode): u-unintentional
- Size - Relative to Path: R1
- Size - Destructive Force: D2
- Sliding Surface: MFcr/FC

Site

- Slope Aspect: South
- Site Elevation: 12, 300’
- Slope Angle: est. 36 - 39
- Slope Characteristic: open bowl

Avalanche Comments

The size of this avalanche is estimated based on the site visit and mapping programs. The destructive size of the triggered avalanche was D2 (large enough to bury and kill a person) and estimated to be R1, very small relative to the paths potential. The avalanche released, while the skier was mid-slope, along a rollover on the steepest portion of the terrain feature. The crown depth ranged from approximately 10 to 18 inches with the average depth estimated at about 14”. The elevation of the highest point of the crown was approximately 12,350’ and ran for 750 vertical feet to 11,600’.

Weather summary

Important weather events prior to this accident came during the middle of January. On January 6th and 7th a stormy period deposited 20” of snow and 1.7”SWE with moderate to strong westerly winds at the Schofield Pass Snotel weather station which is 2 miles north of the accident site. The area sat under dry conditions for the next several days which allowed sun crusts to form at the surface on many southerly slopes. Two low-pressure systems moved well south of the area around January 10 and 12 which deposited 2-4” across the Crested Butte area (a key component of the 1/30 avalanche incident). January 14 and 15th brought warm temperatures to the area under a southerly flow with a significant approaching weather system in the Pacific.

The period from January 16 to January 18th produced two major storms that dropped 30” of snow that contained 3.1”SWE at the Schofield Pass weather station. Winds during this stormy period were from the SW-WNW.

The following week of January 20th-27th brought several smaller waves of moisture to the area. With Schofield Pass weather station accumulating .5”SWE. Another major weather factor during this week was the strong northerly winds that shifted from NW to NE and then back to the NW. Wind gusts were recorded at 50+ mph at Irwin Guides Ridgetop weather station during this period.

Snowpack Summary

The south-facing bowl feature is very susceptible to drifting and loading on the far lookers left side as a ridge runs its length which allows westerly winds to deposit snow, but the middle and lookers right portion of the bowl is often swept by the wind producing shallower than average snow heights. Based on the southerly aspect, this piece of terrain develops sun crusts periodically throughout the winter. Upon inspection of the crown on January 31st, the slab that developed from snowfall from January 16th - January 27th had settled into a supportive slab around 1 foot thick and was resting upon a thin crust that formed on January 14th. Underneath this crust was a thin layer of weak faceted snow. Below the faceted snow was a thicker sun crust that acted as the bed surface of the slide. The avalanche failed in the facets and released the slab resting above.

Events Leading up to the Avalanche

This was a unique avalanche accident as it involved two members of the Crested Butte Avalanche Center, including one forecaster. Although the two skiers (1 & 2) worked closely with each other on a weekly basis, this was the first time the two had been ski partners for a day. Skier 1 was a long time local, with decades of ski experience in this terrain. Skier 2 was also a very experienced backcountry traveler, and avalanche professional, who also had numerous descents through this terrain. Both agreed upon the objective of checking out the South Bowl on Mount Baldy.

Both skiers agreed to meet at Washington Gulch TH at 10 am but Skier 2 forgot an errand to complete in town and had to drive back to town before returning to the TH at 11. Skier 1 needed to be back to town by 330 pm. At just after 11:00, a beacon check was performed and then snowmobiles were ridden to the Elkton townsite before skinning up a series of low angle meadows to a broad windswept ridge that flanks the lookers right side of South Bowl. While skinning, both skiers noticed that another person (Skier 3) was already nearly at the top of South Bowl and a few minutes later, descended the route Skier 1 and Skier 2 were intending to ski. On the ascent, there were several brief words on snowpack about structure but no direct conversation about potential hazards on this given slope or the potential consequences given that the Persistent Slab avalanche problem was shaded for this aspect and elevation band by the Crested Butte Avalanche Center and the Colorado Avalanche Information Center. Skier 1 and 2 both had traveled this route several weeks earlier but prior to the 1/16 through 1/27 snow and wind events. Skier 2 had been in close proximity to this slope on January 14 immediately prior to a prolonged loading event.

Both skiers transitioned and had a short discussion. Both skiers decided that Skier 1 would descend first.

Accident Summary

At approximately 12:51pm Skier 1 dropped into the bowl and in the middle of the slope triggered the avalanche. The avalanche quickly entrained Skier 1 at which point Skier 1 deployed an airbag. Skier 1 was carried approximately 700 vertical feet with the debris into the basin and was buried in a standing position, to the neck. Skier 1's airway was clear of snow.

Rescue Summary

Skier 2 was unable to see skier 1 at the moment the avalanche was triggered. Skier 2 became aware that an avalanche was triggered because of the slab, low on the slope, pushing over the top of the stauchwall. Skier 2 descended close to the skin track and intentionally entered a portion of the slope with the least amount of hangfire to cross. Prior to entering the hangfire, Skier 2 yelled "avalanche" at another skier (Skier 3) climbing up the ridge below. Once on the debris, Skier 2 performed a beacon search while descending. At about 20 feet away both skiers made verbal contact. Skier 1 was buried to the neck and Skier 2 proceeded to dig Skier 1 out. Skier 3 remained on the ridge in a safe location while the extraction took place. Skier 1 was uninjured and was able to ski out to the snowmobiles.

Comments/Takeaways:

This avalanche incident highlights several key takeaways both for the CBAC forecast team, as well as the general public. This avalanche event holds some sensitivity to those involved directly in the event, as well as the CBAC forecast team as a whole. After careful consideration, we as a forecast team decided it was best for the community for total transparency. We spend nearly every waking hour carefully analyzing weather and snowpack data, avalanche trends, and past avalanche history to create the most accurate daily avalanche forecast product. We routinely go into avalanche terrain in order to find the clues or answers to lingering snowpack and avalanche questions for the benefit of the community we serve. It is our hope as forecasters that full disclosure reinforces the message that accidents happen, mistakes in the mountains are made by all no matter your background or expertise, and by providing all the details to the public, that others may learn from this near miss. If nothing else, this avalanche involvement illustrates the complex snowpack that currently exists across the Crested Butte backcountry most winters. Although we regret this event occurred, and there will likely be commentary around the proverbial water cooler, we hope that our transparency sharing this incident will help set the tone and grow the culture amongst our community for greater openness of close calls involving avalanches so others may learn from these "free lessons" and avoid repeating the miscalculations of the past.

We would like to thank the community for their continued and unwavering support, the assistance of the Colorado Avalanche Information Center (CAIC), and other avalanche professionals that contributed to this report.